

## SAAD SITE STEERING COMMITTEE

February 28, 1994

VIA FEDERAL EXPRESS

Ms. Elizabeth B. Davis  
Office of Regional Counsel  
U.S. Environmental Protection Agency - Region IV  
345 Courtland St., N.E.  
Atlanta, Georgia 30365

RE: Saad Trousdale Road Site (the "Site")  
3655 Trousdale Road  
Nashville, Tennessee

Dear Ms. Davis:

This letter and enclosures are in response to Mr. Stroud's letter dated December 28, 1993 (the "Response Letter") commenting on the report submitted by the Saad Site Steering Committee (the "Committee") in April 1993 to Mr. Stroud and you at a joint meeting held in Nashville. The Committee's response to the letter, contained herein, has been given extensive thought, investigation and consideration and represents what the Committee believes is the best approach to remediation of the Saad Site and to bring it to a quick and reasonable closure. Several experts, who will be familiar to Region IV but are new to this Site, were called in specifically to assist the Committee in its evaluation of the Response Letter and to assure that the Committee was not overlooking a more reasonable approach. They have concluded that further removal work at this Site is an arbitrary request, for reasons which are explained further below. Their views on the appropriate steps to take to address conditions presented by the Site are also contained herein. The Committee, which has successfully honored EPA's prior removal action requests, therefore looks forward to the Agency's careful consideration of the matters raised in this letter.

The Response Letter stated that EPA does not agree with the Committee's conclusion that the removal activities at the Saad Site (a State listed Superfund site) are complete and that the Committee has complied fully with the 1992 Administrative Order on Consent (the "AOC"). It also stated disapproval of the Committee's recommendation that any continuing response activities at the Site be under the authority of the Tennessee Department of Environment and Conservation ("TDEC"), and instead asked that the Committee excavate the Site and portions of

adjoining properties to a depth of at least six feet in order to remove Total Recoverable Petroleum Hydrocarbons ("TRPH" or "TPH") above 250 mg/kg from the Site and surrounding area and address contamination in a berm on adjoining railroad property. The Response Letter stated that if the Committee failed to do so, the signatories to the AOC would be in violation of the AOC. Finally, it stated that an approved work plan was required within 60 days. The Committee disagrees with these conclusions and submits the following in response to that letter.

#### The Committee and TDEC Should Address the Site

The removal action demanded is not supportable on any rational basis under the facts presented by this Site. Instead, what is warranted is the completion of a remedial investigation, including a risk assessment, under TDEC's Superfund regulations so that a reasonable cleanup level can be established and a fair evaluation of remedial alternatives can be made in the context of a heavily industrialized area. The Committee intends to continue discussions with TDEC to do just that and requests that EPA reconsider its position and withdraw its demand for yet another removal action.

The Committee is willing to assess the Site pursuant to Tennessee's Superfund regulations. Such an assessment necessarily will be risk-based and will seek to assess the Site in the context of the region. The Committee will meet with TDEC to coordinate this assessment with the investigation currently being undertaken by CSX, under TDEC's supervision, at the adjacent Radnor Yards. This will provide a comprehensive and consistent assessment and will provide a sound basis for decisions about any necessary remedial activities. This assessment is required before any decision can be made about remedial activities. If EPA withdraws its demand for further removal actions, then this assessment can begin promptly. If EPA persists in its demand, then this assessment, decisions about any necessary remedial activities, and the implementation of these decisions at the Site, all will be delayed significantly.

#### Compliance with the AOC

The Committee is in full compliance with the AOC, has performed all the work required thereunder and is not required under it to submit the work plan demanded in the Response Letter. Article VI of the AOC sets forth the activities ordered. Each of those activities has been satisfied: the Committee submitted a work plan; the work plan was approved by EPA and carried out by the Committee; and a report was submitted. There is no provision in the AOC requiring the Committee to perform additional work.

In conversations, you stated that perhaps Section 3 of Article VI could be read to require the Committee to submit a

plan for additional work. This Section required the Committee to submit a report on the results of any additional site characterizations and treatability studies (i.e., the work required under Section 1 of Article VI), and to make recommendations for any additional clean up to be conducted at the Site. It does not require the Committee to submit a work plan for additional work. The Committee has satisfied this requirement.<sup>1</sup>

The issue is not whether obligations under the AOC remain outstanding, but whether a demand by EPA to excavate thousands of yards of soil, boulders and fill material in order to remove TPH above 250 mg/kg makes any sense in the context of this State Superfund site. It does not, as is explained below. Two additional experts [Christopher Teaf, Ph.D, and Environmental and Safety Designs, Inc. (EnSafe)], at the Committee's request, independently reviewed the Response Letter and support this explanation.

#### Completed Removal Activities

The Committee has expended over \$2.2 million at the Saad Site under two AOCs with EPA to do the following:

- In 1990, the Committee successfully removed all liquids, sludges and solids contained in the numerous above ground tanks on the Site, removed those tanks, removed all sludges and solids that had spilled onto the surface of the Site, and removed all visible drums and drum bones. This removed the contamination identified by EPA's original Saad Site OSC as a concern;
- In 1991, the Committee successfully removed all remaining surface debris and subsurface tanks, sumps and related equipment from the Site to eliminate any risks associated with the direct contact pathway to any hazardous substances on the Site; and
- In 1992, the Committee successfully performed a subsurface drum search and removal; confirmed the

---

<sup>1</sup> During negotiations over the scope of work to be accomplished at the Site under the 1992 AOC, EPA repeatedly expressed willingness to divide the work, if possible, and issue a unilateral administrative order to recalcitrants for a portion of the work. When EPA determined that the work was not divisible, it assured the Committee that pursuing recalcitrants would be a priority with regard to any future work. If EPA is considering the issuance of a unilateral order, it should be issued to recalcitrants and not to Committee members.

presence and extent of lead and PCB concentrations that were detected in the initial RA/FI; removed soils exhibiting lead and PCBs at concentrations above Target Response Levels<sup>2</sup> in the oil-water separator area; and performed additional vadose zone soil sampling and analyses.

The 1990, 1991 and 1992 removal activities resulted in the combined removal of 144,700 pounds of hazardous waste; 92,800 gallons of non-hazardous liquids (contaminated perched groundwater); 72 drums of hazardous waste; 139 drums of non-hazardous waste; 168 cubic yards of non-hazardous surface debris; and 220 cubic yards of soil and subsurface debris. Three times the Committee has hired contractors and executed a scope of work agreed upon by EPA, and three times EPA has responded by demanding additional removal.

The 1993 RA/FI Phase II Report explains that there is no apparent leaching of contaminants from vadose zone materials (based on TCLP non-hazardous determination for disposal of soils and debris); that there are minimal vadose zone soils present on-site (80-90% of vadose material is composed of rocks, boulders and debris); and much of the Site is underlain by a native, stiff, low permeability clay that acts as a confining layer between the perched water table and the limestone bedrock.

The extensive and comprehensive work already performed at the Site caused Dr. Teaf in his analysis of risk to public health, safety and the environment to conclude that "The extensive RA/FI activities which have been conducted at the Site have allayed effectively any actual or perceived immediate health hazards from aboveground tanks, drums and other containers, as well as from subsurface and surface soils containing PCBs or lead, based on available data". As a result of this work, whatever threat may have been posed by the Site in a removal context has been eliminated.

#### Responses to the Stated Reasons for Additional Removal

The Response Letter argues that the demanded additional removal activity is justified because:

1. the source of continuing contamination at the Site has not been addressed;
2. the Tennessee industrial cleanup level for TPH in soils is 250 mg/kg;

---

<sup>2</sup>These TRL's were based on soils cleanup levels in then draft Tennessee Superfund regulations. As is discussed below, these levels were deleted in the final regulations.

3. additional removal activities are not likely to result in recontamination of clean backfill above the perched water zone;
4. the removal activity must address the contaminated material that has been identified in the railroad berm; and
5. existing contamination on the Saad Site did not originate offsite.

The first point does not justify continued removal action. If it did, there would be no need for a remedial action program: all sites would be excavated and the dirt and debris hauled off somewhere or, worse yet, incinerated onsite in the hope that the resultant ashes can be disposed of offsite somewhere. This is extraordinarily expensive and is not justified by any resultant benefits. That is why removal actions are limited in dollar amount and must be tailored to eliminate immediate and substantial threats to public health, safety or the environment. That has been accomplished here.

The second point simply is wrong. In an early draft of its regulations, TDEC proposed a set of numerical standards for soil clean up levels that included an industrial area TPH level of 250 mg/kg. Specific standards for soils were considered and ultimately rejected by TDEC, however. The final, recently effective Tennessee Superfund regulations (Tenn. Rule 1200-1-13-.08, copy enclosed) set cleanup levels for State Superfund sites without numerical standards. Rather than setting an arbitrary cleanup level number applicable to all sites, the regulations require identification of the "Control Background" (defined as the concentration of hazardous substances consistently present in the environment due to long term localized industrial or commercial activities) and the preparation of a Risk Assessment. In other words, the State of Tennessee determines site cleanup levels on a site-specific, and not generic, basis. There is no question that such an undertaking has not occurred here. Prior to any further work at the Site, a risk assessment should be undertaken pursuant to Tennessee regulations.

With respect to the third point, the Committee asked EnSafe to consider what would happen if the soils and boulders were excavated and replaced with clean backfill. In addition to its knowledge of the general area, EnSafe looked at the specific hydrogeology of the Site and reviewed all available prior data. EnSafe reached the opposite conclusion from EPA: recontamination likely would occur because the "smearing" that occurs with movement of the perched water table after rainfall events will recontaminate clean backfill. The soils removal demanded in the Response Letter would cause significant expenditures without any benefit to the environment.

The fourth point introduces the property of CSX Railroad to the Saad Site. The berm that borders the Saad Site is on CSX's property and is part of the several hundred acre, eighty year-old CSX Radnor Yards rail complex. That berm supports active rail transport lines and adjoins a large and currently active area of CSX property that is impacted by railroad operations, including fuel and used oil spills, and contains TPH levels comparable to those detected on the Saad Site, even assuming for the moment that the TPH concentrations reported in the RA/FI are accurate (see the EnSafe report which explains that because of smearing, TPH concentrations likely are overstated). CSX is working under an agreement with TDEC to address the TPH impacts from historical operations at Radnor Yards. Significant investigation and a subsurface water collection and treatment system have been completed with TDEC's oversight, and further work is underway. Based on reported levels of TPH soils contamination at Radnor Yards and the work progressing there, chasing TPH at levels above 250 mg/kg, as demanded in the Response Letter, would (i) on the Saad Site result in a cleanup at different and much tighter standards than likely will be required at the adjoining Radnor Yards, and (ii) at the berm and so far onto the Radnor Yards as TPH above 250 mg/kg persists, result in a cleanup that is inconsistent with, and that interferes with, an investigation and cleanup that is already in progress under TDEC's supervision. All of this is without any factual or technical basis. There is no legitimate basis for a removal action to address the berm.

Finally, there is no question that Saad's operations caused soil impacts on the Saad property. However, the available potentiometric data indicate that the perched water table flows towards the Saad Site from the railyard. The historic data support this conclusion. The slope of a clay layer in one cross section of a report does not indicate otherwise. That slope does not determine the groundwater level or the direction of groundwater flow, as EnSafe explains in its report.

#### The Demand in the Response Letter is Arbitrary and Unjustified

The Committee has looked at the demand contained in the Response Letter from all relevant perspectives, and none of them provide a rational basis for the demand.

Cost. The Committee has sought an estimate of the cost of removing soils, boulders and other debris down to a TPH level of 250 mg/kg. Realistic estimates range from \$2.3 million to \$10.9 million depending upon how insistent EPA is about this cleanup level.<sup>3</sup> If EPA is content to leave buildings in place that

---

<sup>3</sup> These figures do not account for (i) excavation below six feet, (ii) excavation beyond the Saad Site, the area behind the Franklin Brick building, and the portion of the berm adjacent

employ scores of people at neighboring locations, and not jeopardize their integrity by digging too close, and if EPA does not require removal of the berm, agrees on a depth of excavation that does not require "chasing" the TPH, and does not expand the scope of work while in the field, then the cost may be at the lower end of this spectrum. If EPA insists on all that is stated in the Response Letter, then the cost could well exceed the higher end of the spectrum.

These costs are high, especially since \$2.2 million has already been spent at the Site, the Site is less than 0.4 acres, and TPH is apparently the primary contaminant of concern. They are rationally justified only if they will result in a substantial reduction of risk. They do not.

Risk. Dr. Christopher Teaf is a Professor of Toxicology at Florida State University and a recognized expert in risk assessment at federal Superfund and State sites throughout the country. His report is attached. Dr. Teaf offers his perspective on the Site setting:

The Saad Site is in an industrial area, surrounded by several hundred acres of other sites exhibiting contamination by similar or identical analytes. The CSX Radnor Yards, which are located to the west of the Saad property, also exhibit TRPH concentrations in excess of 250 mg/kg over a wide area, according to reports submitted by CSX to the TDEC as a result of site investigations conducted on that property. Thus, creation of an "oasis" of cleanliness at the Saad Site, even if it were feasible by virtue of further "removal" actions, makes little technical sense. There are two buildings adjacent to the Saad Site that appear to rest on soils which contain TRPH over 250 mg/kg. At least one of those buildings (Franklin Brick, which borders the Saad Site to the south) houses an ongoing business operation. Certainly "removal" actions for TRPH just at the Saad Site would not remove whatever generic local threat might be hypothesized from TRPH, since TRPH concentrations in excess of 250 mg/kg would still remain in place over a much wider area than the Saad Site, if a "removal" action was undertaken.

Dr. Teaf concludes in pertinent part:

The detected concentrations and the distribution of contaminants which have been observed at the Saad Site

---

thereto, or (iii) any costs related to the impact any further removal actions would have on adjoining businesses that employ dozens of people.

do not warrant the "removal" action for soils as sought by the U.S. EPA. Rather, site conditions merit judgment and evaluation according to the appropriate risk-based principles and requirements of both U.S. EPA and the TDEC. An evaluation of the detected concentrations of discrete analytes in soil at the Saad Site, even considered in light of the maximum detected concentrations, does not indicate an immediate risk to public health, welfare or the environment. Neither health nor environmental issues related to the Site are sufficient to justify such a continuing precipitous excavation and "removal" mandate, particularly in the context of a non-technically-based target such as the 250 mg/kg total TRPH value. Considering the absence of a site-specific evaluation of relevant cleanup standards, the extensive work which has been conducted heretofore at the Site, the presence of buildings over impacted soils, the presence of boulders and other fill material that underlie the Site, the presence of a clay aquitard beneath the Site, the absence of regional groundwater receptors, the surrounding character of the industrial area (including a vast rail yard that has operated for several decades), and the other factors identified above, the "removal" action demand is not supportable. The Site warrants further investigation, perhaps in conjunction with surrounding areas. Such an approach is planned for the CSX Radnor Yards, up to and including the berm area, and the information gathered in that investigation will be useful in determining an appropriate course for the Saad Site. However, until then, the selection of a prescribed action requiring the digging and hauling of soils, boulders, and other fill material to an offsite source for this site at this time is arbitrary and not technically sound.

Dr. Teaf was not asked to address the risk associated with the removal action, but it is inconceivable that a removal action involving significant excavation, chasing of TPH to 250 mg/kg, a large exclusion zone, the destruction of places of business, and hundreds of truck trips for disposal would not present a risk scenario greater than the currently stabilized situation at the Site.

Groundwater Issues. There are no groundwater receptors in the area, as Dr. Teaf and others before him have pointed out. Public water supply is available throughout the area and has been for decades. While the Response Letter raises questions about free product removal from the perched water table, the Committee does not understand this letter to represent a demand by EPA that this work be conducted as a removal action.



There have been some historic concerns raised about groundwater quality at Croft Spring. No data support the contention in the Response Letter that Croft Spring is a probable receptor of contamination emanating from the Site. First, contamination was discovered at the Spring in the 1960s, whereas operations did not begin at the Saad Site until 1971. Second, as is stated in Dr. Teaf's report, the nature of the material at the Croft Spring is consistent with the source being nearby and is inconsistent with the source being as far away as the Saad Site. Third, as stated in Dr. Teaf's report, EPA has not considered the most likely source of any contamination at the spring. The Croft farmhouse has an underground diesel fuel tank that is less than 150 meters uphill from the Spring. This tank is estimated to be at least 30 years old, and was used until three years ago.

Nothing in the available data indicates that there would be any improvement in Croft Spring as a result of EPA's proposed activities at the Site. Croft Spring is not a proper concern of a removal action at the Site. Croft Spring is properly addressed through an investigation of nearby sources, beginning with the diesel tank and nearby industrial and commercial operations, and not through excavation of the Saad Site, which is located almost a mile from the Spring.

That is not to say that understanding the hydrogeology at the Site is not an important goal. It is properly a goal of a remedial investigation, however, and not a removal action. Indeed, EnSafe is a local firm with significant experience in karst hydrogeology and remediation in Tennessee and it joined Dr. Teaf in reaching its conclusion about EPA's demand:

Review of the existing information suggests that this area is coincidentally located on a structural high in the underlying Hermitage Formation, which, in our view, supports the reviewers who have suggested that a groundwater divide exists in the Radnor Yard area. The Hermitage Formation, which underlies the Bigby Limestone, is considered a regional aquitard, and would likely control the general direction of groundwater flow in the Bigby. The presence of the groundwater divide and the existence of a fractured limestone aquifer such as the Bigby limestone, suggests that the hydrogeologic regime in this area is complex. While EPA has questioned the certainty of flow regimes in the Site reports due to the variation in time frame of data collection, following our review of the area geological information, we believe that the flow regimes are reasonable.

To go beyond generalized flow regimes, however, will require additional data collection. In the absence of

such data collection and evaluation, a removal action is premature and indefensible.

#### Other Considerations

Consistency with State Action. As has been repeatedly and extensively documented, this 0.4 acre site sits in a large industrial area with TPH soils contamination. This area includes the adjacent Radnor Yards, has been industrial for decades and is not likely to convert to non-industrial or business use. Any additional removal activities at the Saad Site should be consistent with remedial activities planned for the Saad Site and for adjacent and nearby sites in the region. The removal demanded in the Response Letter does not accomplish this.

CSX is in the process of preparing a Groundwater Pollution Prevention Plan for the Radnor Yards. It will include a groundwater assessment and an assessment of soils contamination impacting groundwater. This is under the supervision of, and in agreement with, TDEC. That plan is due to be delivered to TDEC in approximately 60 days. The berm is on CSX's property, and it will be assessed as part of the plan. As is required by Tennessee regulations, decisions on cleanup activities at the Radnor Yards will be based on an assessment of the risks posed by contamination at the site and the benefits and cost effectiveness of the proposed cleanup activities. Tennessee regulations would require similar activities at the Saad Site, and TDEC has consistently stated that it will assess the Saad Site in the context of regional contamination and cleanup activities and regional land use. The arbitrary demand in the Response Letter for additional extensive and expensive removal activity that does not reduce any significant risk is not consistent with this regional approach.

What would be consistent with any later remedial activities is an assessment of the Saad Site on the same time frame as the Radnor Yards so that the impact of the Saad Site on groundwater, and the benefit of any planned cleanup activities at the Saad Site, can be assessed in the context of the industrialized region of which it is merely a small part and the other cleanup activities being conducted in the region.

Free Product Recovery. The April 1993 report submitted by the Committee stated that the installation of wells for free product recovery should be considered. The Committee, with the assistance of the experts referred to above, has considered this and concluded that this is not necessary or advisable now and should be considered only in connection with any remedial activities required by TDEC.

Prior Request for Access. The Committee's earlier request that EPA be prepared to assist in obtaining access from the

owners of the Site is withdrawn as the Committee believes that no further work by, or under the supervision of, EPA is necessary or warranted. At our meeting in April 1993, Committee representatives stressed a number of important points that needed to be addressed before the Committee could consider revising the April 1993 report to include a recommendation for additional work. Among those were requests that any additional work be clearly delineated, be required only if remaining contamination meets the criteria for a response action, and be limited to contamination that meets these criteria. The Committee regrets that the Response Letter failed to address these issues.

Access for work under TDEC's supervision will be acquired under the Tennessee Superfund statute and regulations. TDEC's Office of General Counsel has confirmed the ability of TDEC to acquire access.

### Conclusion

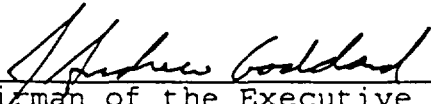
As stated above, additional removal action is not supportable under the facts presented by this Site. A remedial investigation, including a risk assessment, under TDEC's Superfund regulations is justified to establish a reasonable cleanup level and identify reasonable remedial alternatives for a heavily industrialized area. The Committee will meet with TDEC to do that and requests that EPA support and further this effort by withdrawing its demand for another removal action at this Site.

The Committee again stresses that it is willing to assess the Site pursuant to Tennessee's Superfund regulations. The assessment would be risk-based and would seek to assess the Site in the context of the region. This assessment would be coordinated with the investigation currently being undertaken by CSX, under TDEC's supervision, at the adjacent Radnor Yards. This comprehensive approach will provide a sound basis for determining any necessary remedial activities. The assessment should and can begin promptly if EPA withdraws its demand for further removal actions. The Committee asks that EPA withdraw this demand so that the Committee and TDEC may get on with the work of conducting this assessment, making decisions about any necessary remedial activities, and implementing these decisions at the Site.

Drew Goddard, Chairman of the Executive Committee, will call you by the end of this week to schedule a meeting with you and appropriate officials at EPA to discuss these matters in more detail.

Sincerely,

SAAD SITE STEERING COMMITTEE

  
Chairman of the Executive Committee

  
Chairman of the Technical Committee

#0264515.05

cc: Mr. Fred Stroud  
Mr. Shane Hitchcock  
Mr. Richard Green  
Mr. Joseph Franzmathis  
Mr. Patrick M. Tobin